Title of Instructional Materials: Math Expressions (Houghton Mifflin Harcourt)

Grade Level: Grade 1

Summary of Math Expressions

Overall Rating: ☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4) **Summary / Justification / Evidence:** Teacher's edition was difficult to navigate. Traditional. Good job of problem solving.	Important Mathematical Ideas: ☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4) **Summary / Justification / Evidence:** Geometry was limited.
Skills and Procedures: ☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4) **Summary / Justification / Evidence:** Limited instructional materials for some concepts.	Mathematical Relationships: ☐ Weak (1-2) ☐ Moderate (2-3) ☒ Strong (3-4) **Summary / Justification / Evidence:**

1. Make sense of problems and persevere in solving them.	
Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

2. Reason abstractly and quantitatively.	
Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits o creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

4. Model with mathematics.	
Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

5. Use appropriate tools strategically.	
Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

6. Attend to precision.	
Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

7. Look for and make use of structure.	
Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7 °— 8 equals the well-remembered 7 °— 5 + 7 °— 3, in preparation for learning about the distributive property. In the expression $x2 + 9x + 14$, older students can see the 14 as 2 °— 7 and the 9 as 2 + 7. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 – 3(x – y)2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

8. Look for and express regularity in repeated reasoning.	
Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x2 + x + 1)$, and $(x - 1)(x3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.	
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
Summary / Justification / Evidence:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.2**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Word problems only
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.3**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.4**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** Not enough apparent
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.5**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** showing counting on fingers
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.6**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.7**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** seems weak
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☒2 ☐3 ☐4

Domain: *Operations and Algebraic Thinking*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.OA.8**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.1**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.2a**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** moved unknown variable around
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.2b**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.2c**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** not a specific number of "tens"
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.3**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.4**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** adding two digit numbers in teens
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.5**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** marginal
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☒2 ☐3 ☐4

Domain: *Number and Operations in Base Ten*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.NBT.6**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** only seen in enrichment
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☒2 ☐3 ☐4

Domain: *Measurement and Data*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.MD.1**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** both inches and centimeters, made a table of different measurements.
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Measurement and Data*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.MD.2**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** thoroughly covered
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Measurement and Data*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.MD.3**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Measurement and Data*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.MD.4**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** pictographs, tables, circle graphs
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Geometry*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.G.1**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** rotations, making new shapes, congruence
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Geometry*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.G.2**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:** combined and took apart shapes, connected to symmetry
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☐3 ☒4

Domain: *Geometry*	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
Standard: **1.G.3**	Important Mathematical Ideas: ☐1 ☐2 ☐3 ☐4 Skills and Procedures: ☐1 ☐2 ☐3 ☐4 Mathematical Relationships: ☐1 ☐2 ☐3 ☐4
Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):	**Summary / Justification / Evidence:**
Indicate the chapter(s), section(s), and/or page(s) reviewed:	**Overall Rating**: ☐1 ☐2 ☒3 ☐4

INDIANA'S EDUCATION ROUNDTABLE 2010

Much better than gr. 2
If I read it using Book may
(#2) might be better.

Houghton Mifflin Harcourt

Still feel there is too much Extra Stuff.

Instructional Materials Analysis and Selection

Phase 3: Assessing Content Alignment to the Common Core State Standards for Mathematics

Grade 1

a project of
The Charles A. Dana Center
at the University of Texas at Austin

Instructional Materials Analysis and Selection

Phase 3:

Assessing Content Alignment to the Common Core State Standards for Mathematics

A project of
The Indiana Education Roundtable, The Indiana Department of Education,
and
The Charles A. Dana Center at The University of Texas at Austin

2010–2011

Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

8. Look for and express regularity in repeated reasoning.

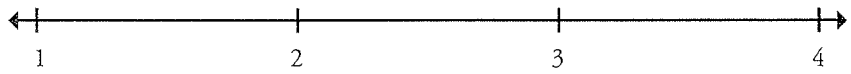
Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through $(1, 2)$ with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Reviewed By: _____

Title of Instructional Materials: _____

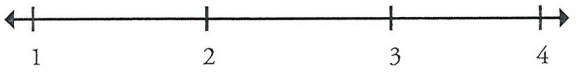
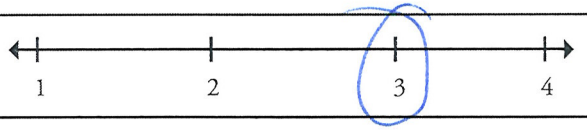
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Represent and solve problems involving addition and subtraction.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[1] 2-1 Pg 115 - Pictures - addt. 2-2 Pg 121 addt w/ counters 2-11 P. 178 - Subt. - Pictures 2-13 - Counters Subt. 1 See Glossary, Table 1. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Pictures & Counters used Don't see all of 3 word problems	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Represent and solve problems involving addition and subtraction.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. 9-6 p 812 activity are word problems - Student Book #5 only 9-7 mixed operations - Same format **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

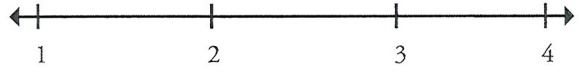
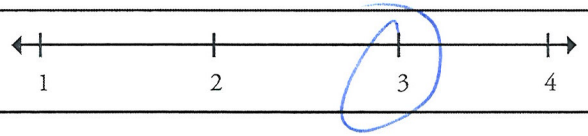
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Understand and apply properties of operations and the relationship between addition and subtraction.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.3 Apply properties of operations as strategies to add and subtract.[1] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)* 1-11 p. 63 #'s to 7 1-12 p. 69 #'s ~~8~~ to 8 1-13 p. 75 #'s to 9 1-14 - 81 #'s to 10 1 Students need not use formal terms for these properties. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Understand and apply properties of operations and the relationship between addition and subtraction.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.4 Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.* 3-7 p. 253 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Add and subtract within 20.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). 3-1 p. 218 3-3 p. 229 **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Interesting to me that they are encouraging use of fingers. ~~DC~~ Not sure I agree	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

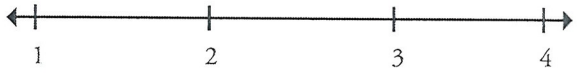
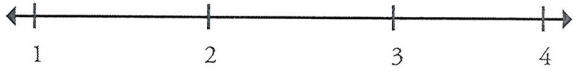
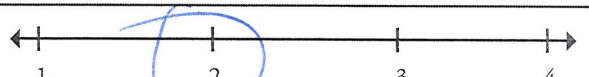
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Add and subtract within 20.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). all of unit 3 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

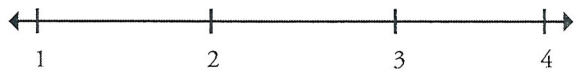
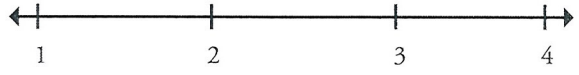
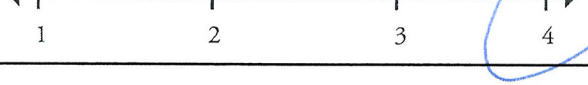
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Work with addition and subtraction equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.* 1.5 & 1.8 according to book seems weak **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

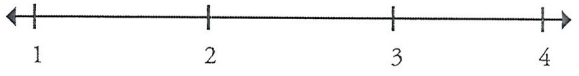
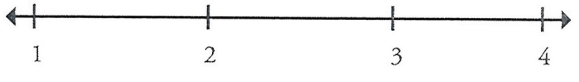
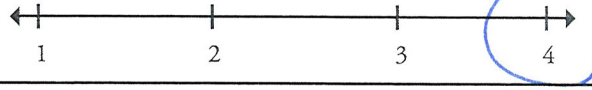
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Work with addition and subtraction equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = ☐ – 3, 6 + 6 = ☐.* 9 - 11 9 - 6 9 - 7 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Extend the counting sequence.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. all of unit 2d **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

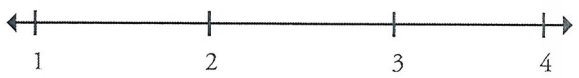
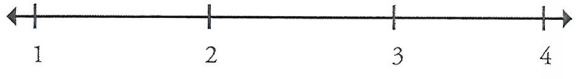
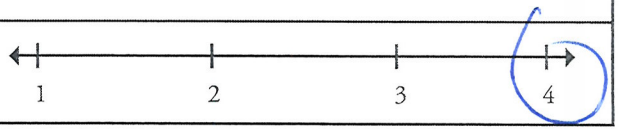
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.2a 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones — called a "ten." 4-1 p. 308 (tens) 4-2 311 (teens) 4-4 p. 326 – like activity 12: 8 + 4 = 12 10 + 2 = 12 **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Well Done	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.2b 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. 4.2 teens 4.3 4.5 4.4 4.9 4.11 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

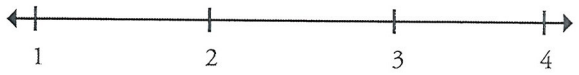
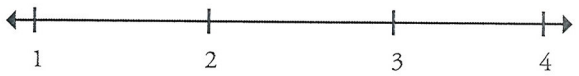
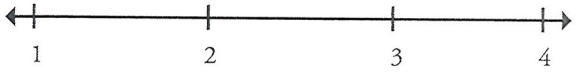
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.2c 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). 4.1 P. 310 refers to #'s But Not X# of 10's. 4.2 does explain this as related to "teens" **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 1 2 3 4

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. 6.6 p. 527 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
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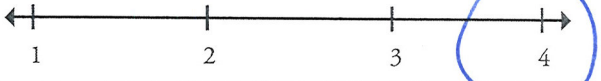
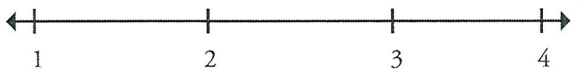
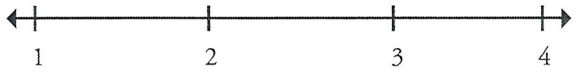
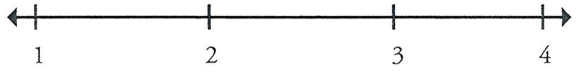
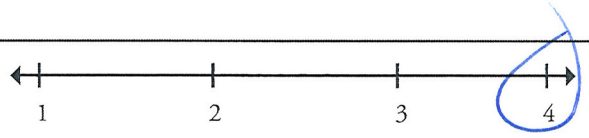
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. CMP reviews adding 2digit #'s in tens **Indicate the chapter(s), section(s), and/or page(s) reviewed.** By 7|7 8-4	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

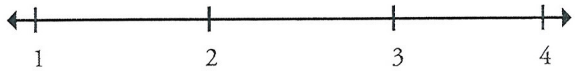
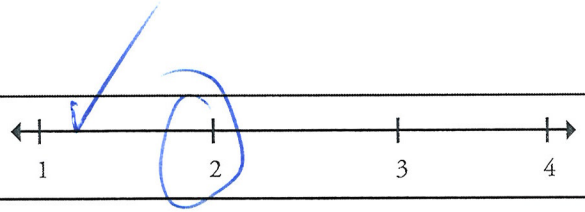
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. lesson 5-6 w/a 100's grid p. 429 also 5-7 **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Marginal	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4 (3) Overall

Reviewed By: _____

Title of Instructional Materials: _____

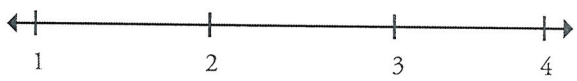
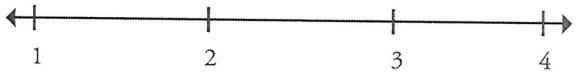
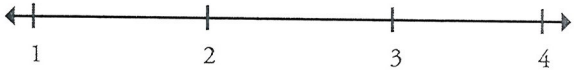
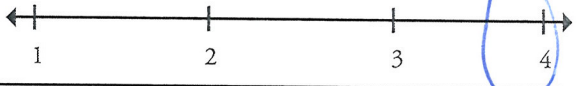
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.6 Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Only uses an enrichment pg **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

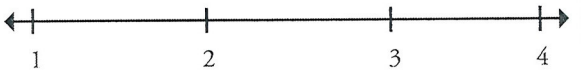
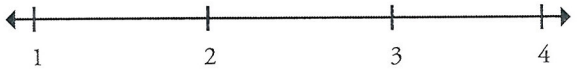
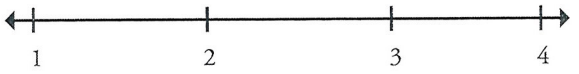
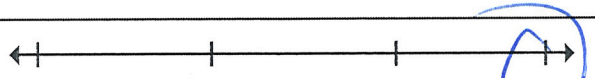
MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Measure lengths indirectly and by iterating length units.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object. 16-3 pg 869 for inches 16-5 p. 881 for CM **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

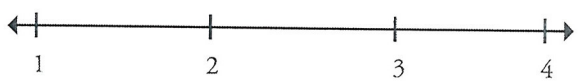
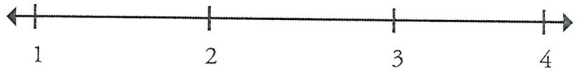
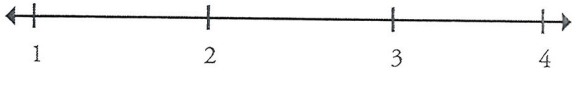
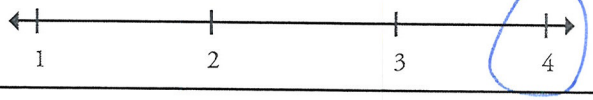
MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Measure lengths indirectly and by iterating length units.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.MD.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.* 10.1 10.2 10.3 10.5 good job **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Beginning pg 8200	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

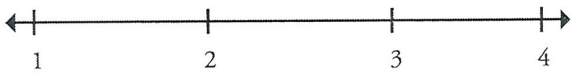
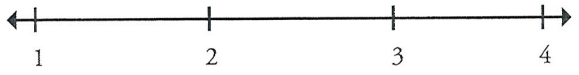
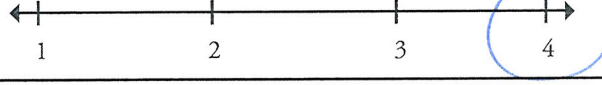
MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Tell and write time.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks. 7-16 p. 659 - hour 7-12 p. 671 ½ hr **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

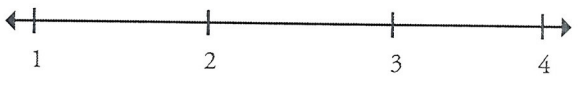
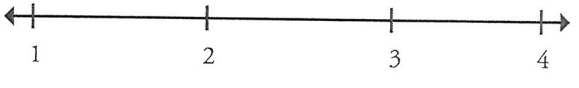
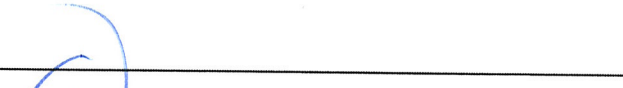
MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Represent and interpret data.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. 2 categories 6-1 p. 501 6-2 p. 507 6-3 3 or more categories 6-5 p. 521 **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

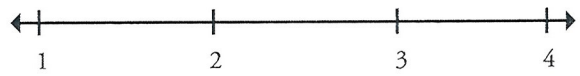
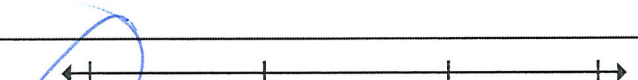
MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.G.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** don't see	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

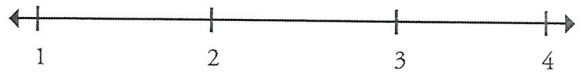
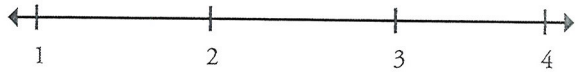
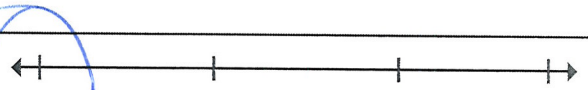
MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.G.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.[1] 1 Students do not need to learn formal names such as "right rectangular prism." **Indicate the chapter(s), section(s), and/or page(s) reviewed.** dont see	Important Mathematical Ideas Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: _____

Title of Instructional Materials: _____

MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.G.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths*, and *quarters*, and use the phrases *half of, fourth of,* and *quarter of.* Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** dont see	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

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Houghton Mifflin

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

Documenting Alignment to the Standards for Mathematical Practice

Grade 1

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

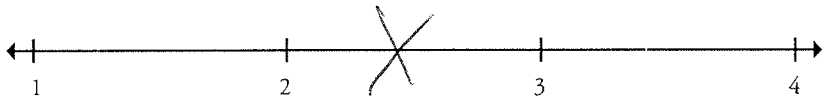
Indicate the chapter(s), section(s), or page(s) reviewed.

Units 3, 4, 5, 6, 8, 9

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Reviewed By: _____

Title of Instructional Materials: _____

Documenting Alignment to the Standards for Mathematical Practice

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Indicate the chapter(s), section(s), or page(s) reviewed.

Units 2, 4, 5, 8, 9

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

Documenting Alignment to the Standards for Mathematical Practice

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Indicate the chapter(s), section(s), or page(s) reviewed.

Units 4, 5, 6, 9, & 10

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

Documenting Alignment to the Standards for Mathematical Practice

4. Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

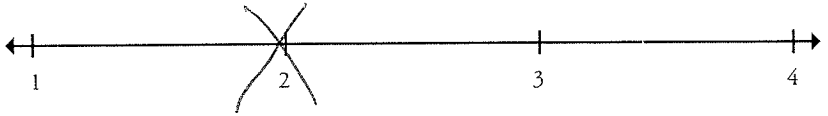
Indicate the chapter(s), section(s), or page(s) reviewed.

Units 2, 3, 4, 7, 8

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

Documenting Alignment to the Standards for Mathematical Practice

5. Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

Indicate the chapter(s), section(s), or page(s) reviewed.

Units 5, 6, 8, & 10

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

Documenting Alignment to the Standards for Mathematical Practice

6. Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

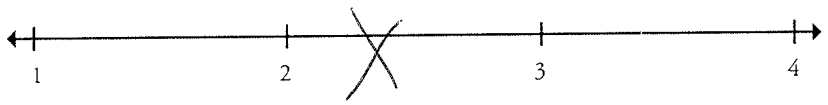
Indicate the chapter(s), section(s), or page(s) reviewed.

Units 2, 3, 5, 6, 8, & 10

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

Documenting Alignment to the Standards for Mathematical Practice

7. Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

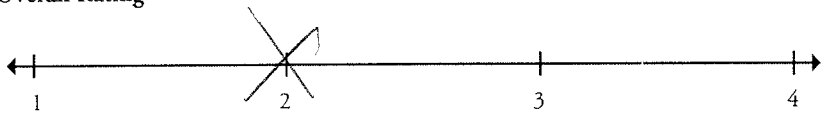
Indicate the chapter(s), section(s), or page(s) reviewed.

Unit 4, 5, 8, & 10

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

Documenting Alignment to the Standards for Mathematical Practice

8. Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Indicate the chapter(s), section(s), or page(s) reviewed.

Units 1, 2, 4, 5, 7, 8

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

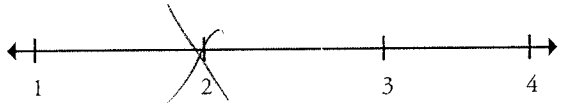
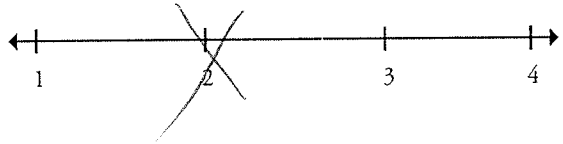
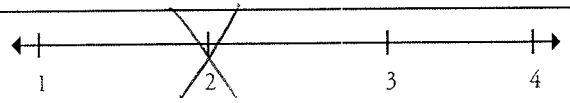
Summary/Justification/Evidence

Overall Rating

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

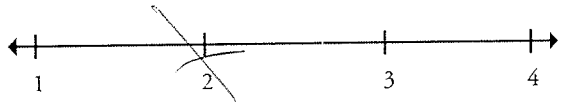
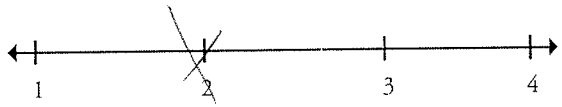
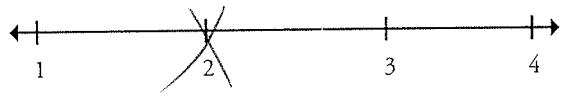
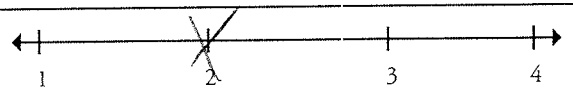
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Represent and solve problems involving addition and subtraction.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[1] 1 See Glossary, Table 1. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 2, 4, & 5	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

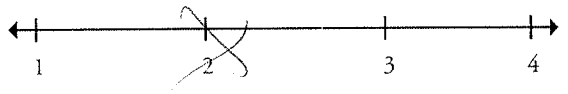
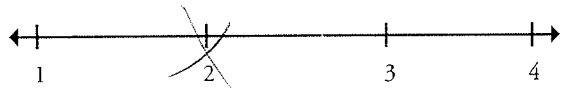
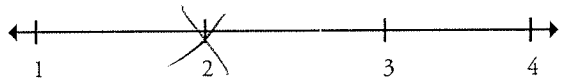
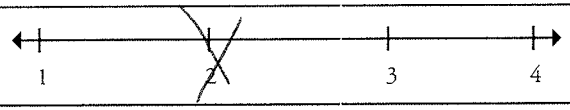
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Represent and solve problems involving addition and subtraction.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Unit 1, 2, 3, 4	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

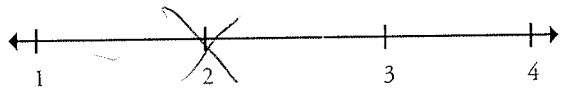
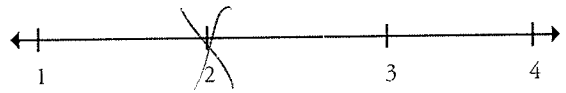
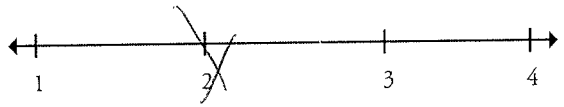
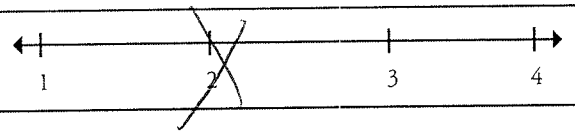
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Understand and apply properties of operations and the relationship between addition and subtraction.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.3 Apply properties of operations as strategies to add and subtract.[1] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)* 1 Students need not use formal terms for these properties. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 2, 3, 4, 5	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

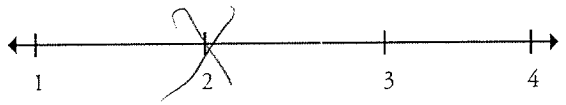
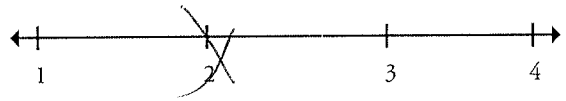
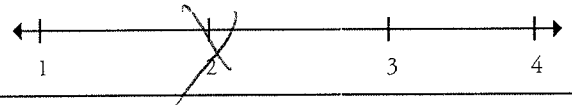
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Understand and apply properties of operations and the relationship between addition and subtraction.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.4 Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Unit 2, 3, & 4	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

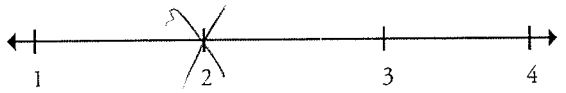
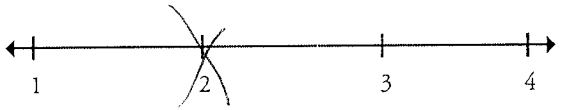
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Add and subtract within 20.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 2, 3, 4	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

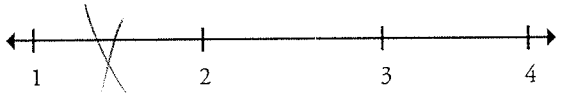
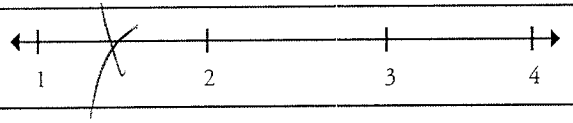
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Add and subtract within 20.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 2, 3, 4, & 5	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

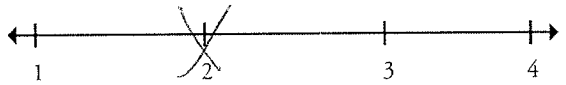
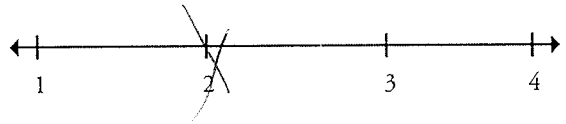
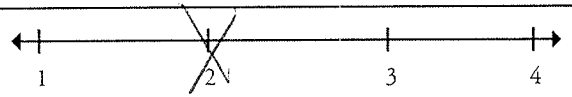
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Work with addition and subtraction equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 2, 3, 4	Important Mathematical Ideas Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

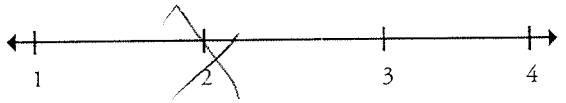
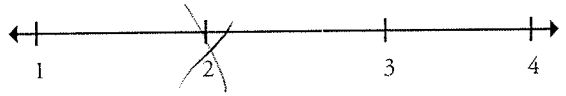
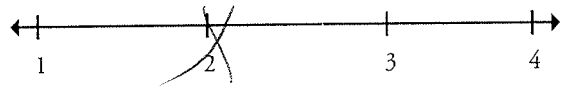
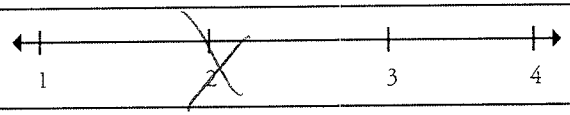
MATHEMATICS: GRADE 1 – OPERATIONS AND ALGEBRAIC THINKING – 1.OA

Work with addition and subtraction equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = ☐ – 3, 6 + 6 = ☐.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 2, 3, 4, & 5	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

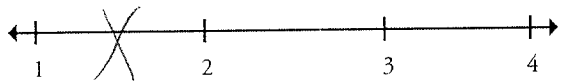
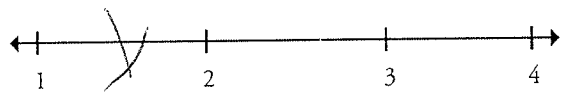
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Extend the counting sequence.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 4, 5, 8, 9	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

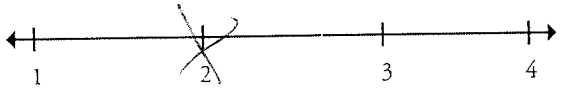
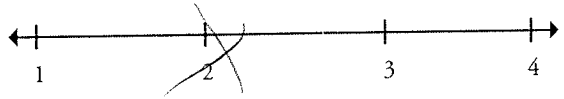
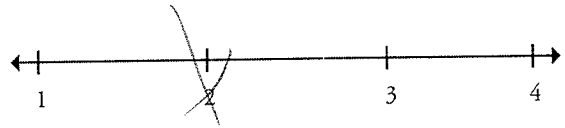
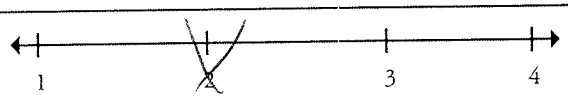
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.2a 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones — called a "ten." **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 4 & 5	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

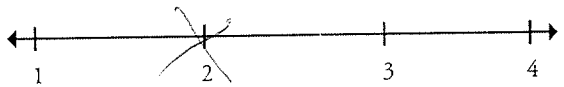
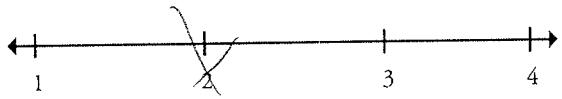
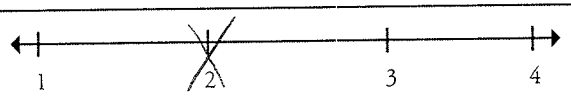
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.2b 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 2, 4, & 5	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

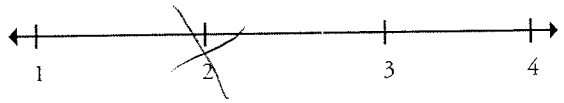
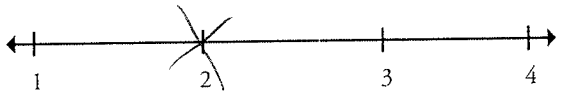
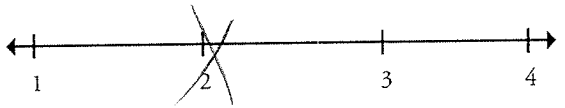
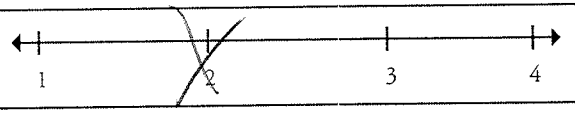
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.2c 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 2, 4, 5	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

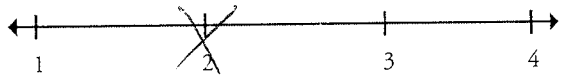
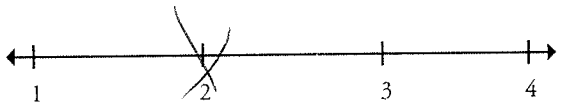
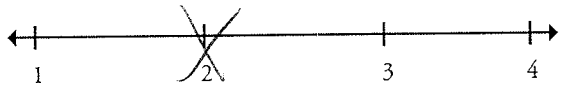
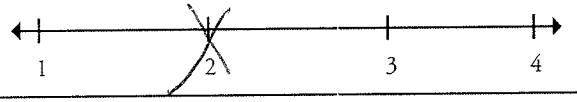
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Understand place value.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 4, 5, & 8	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

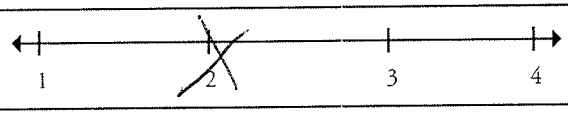
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 4, 5, & 8	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

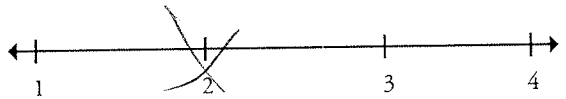
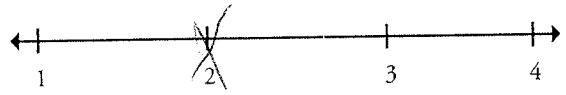
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 4, 5, & 8	Important Mathematical Ideas Skills and Procedures Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

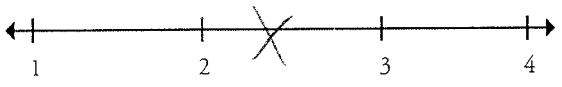
MATHEMATICS: GRADE 1 – NUMBER AND OPERATIONS IN BASE TEN – 1.NBT

Use place value understanding and properties of operations to add and subtract.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.NBT.6 Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** 2, 4, 5, 8	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships **Summary / Justification / Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

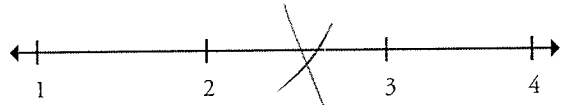
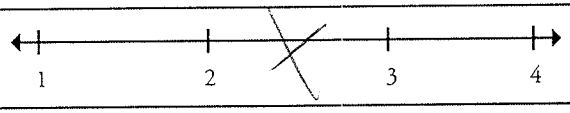
MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Measure lengths indirectly and by iterating length units.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Unit 10	Important Mathematical Ideas Skills and Procedures Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Explorations

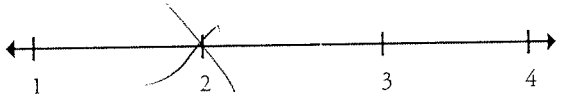
MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Measure lengths indirectly and by iterating length units.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1.MD.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.* **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Unit 10	Important Mathematical Ideas Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

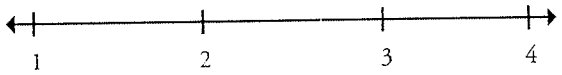
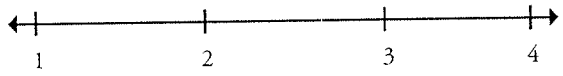
MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Tell and write time.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Unit 7 – lesson 12	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** limited practice Overall Rating

Reviewed By: _____

Title of Instructional Materials: _____

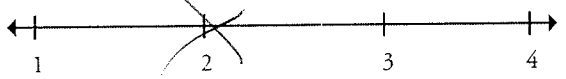
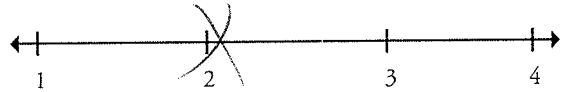
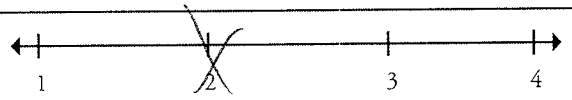
MATHEMATICS: GRADE 1 – MEASUREMENT AND DATA – 1.MD

Represent and interpret data.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. **Indicate the chapter(s), section(s), and/or page(s) reviewed.**	Important Mathematical Ideas  Skills and Procedures  Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

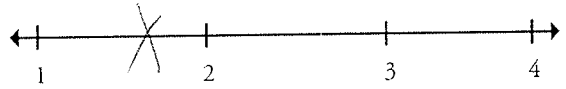
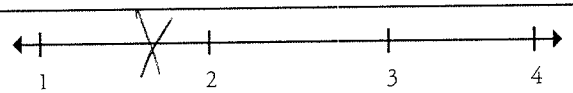
MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.G.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Unit 1, 6, + 9	Important Mathematical Ideas  Skills and Procedures Mathematical Relationships  **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.G.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.[1] 1 Students do not need to learn formal names such as "right rectangular prism." **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Units 2, 6, & 9	Important Mathematical Ideas Skills and Procedures  Mathematical Relationships **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** Overall Rating 

Reviewed By: [redacted]

Title of Instructional Materials: Math Expressions

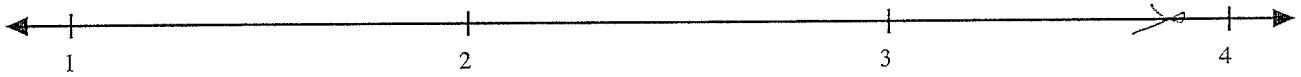
MATHEMATICS: GRADE 1 – GEOMETRY – 1.G

Reason with shapes and their attributes.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
1.G.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths*, and *quarters*, and use the phrases *half of, fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares. **Indicate the chapter(s), section(s), and/or page(s) reviewed.** Unit 6	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary / Justification / Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** limited instructional materials Overall Rating 1 2 3 4

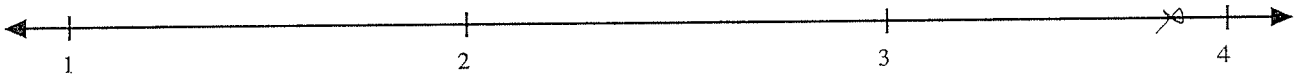
Important Mathematical Ideas: Understanding the scoring

	Superficially Developed ← → Well Developed	
Development	1 2 3 4	
	Important mathematical ideas are alluded to simply or are missing, approached primarily from a skill level, or provided for students outside any context.	Important mathematical ideas are evident, conceptually developed, and emerge within the context of real-world examples, interesting problems, application situations, or student investigations.
Connections	1 2 3 4	
	Important mathematical ideas are developed independently of each other (i.e., they are discrete, independent ideas).	Important mathematical ideas are developed by expanding and connecting to other important mathematical ideas in such a way as to build understanding of mathematics as a unified whole.
Rigor and Depth	1 2 3 4	
	Important mathematical ideas are applied in routine problems or in using formulated procedures, and are extended in separate / optional problems.	Important mathematical ideas are applied and extended in novel situations or embedded in the content, requiring the extension of important mathematical ideas and the use of multiple approaches.

Skills and Procedures:
Understanding the scoring

	Superficially Developed → Well Developed
Development	 Skills and procedures are the primary focus, are developed without conceptual understanding, and are loosely connected to important mathematical ideas — important mathematical ideas are adjunct. Skills and procedures are integrated with important mathematical ideas and are presented as important tools in applying and understanding important mathematical ideas.
Connections	 Skills and procedures are treated as discrete skills rarely connected to important mathematical ideas or other skills and procedures. Skills and procedures are integrated with—and consistently connected to—important mathematical ideas and other skills and procedures.
Rigor and Depth	 Skills and procedures are practiced without conceptual understanding outside any context, do not require the use of important mathematical ideas, and are primarily practiced in rote exercises and drill. Skills and procedures are critical to the application and understanding of important mathematical ideas, and are embedded in problem situations.

Mathematical Relationships: Understanding the scoring

	Superficially Developed ← → Well Developed
Development	 Mathematical relationships are not evident, and mathematics appears as a series of discrete skills and ideas. ... Mathematical relationships are evident in such a way as to build understanding of mathematics as a unified whole.
Connections	 Mathematical relationships are not required of students or are used primarily to provide a context for the practice of skills or procedures — words wrapped around drill. ... Mathematical relationships are integrated with important mathematical ideas, and are integral in required activities, problems, and applications.
Rigor and Depth	 Mathematical relationships require the use of skills and procedures, but rarely require the use of any important mathematical ideas or connections outside mathematics. ... Mathematical relationships require the broad use of mathematics and integrate the need for important mathematical ideas, skills, and procedures, as well as connections outside mathematics.

ELL
Intervention
whole class
pairs

- Quick Practice
- Daily Routines

patterns

△ connected to lesson on 3
□ & ▭ connected to + pent to 5

use stick w/ counters for sums of 4 (p 28)
relate #s to shapes to add sentences 1 more, 1 less

games
doubles, evens, odds
add w/ pix counting on → * connect to money 152
concrete, pictorial, abstract (178) 185
prob solv strategies add - horizontal & vertical
Mixed story prob 290 10s & teens
10¢ &, 1¢, 5¢, 25¢ 100s board * connect 100 board to money
change for a dollar
coin combinations equivalent values change for $1
pictographs tables circle graphs
* inches → make table of measurements
rotations, making new shapes, sort & classify, combine & take apart shapes
congruence
doubles
½ shape connected to symmetry → shapes and groups
to money
time to ½ hr
2-digit add to 100 concrete pictorial abstract 730

? multi step 830 in cm weight capacity
estimate
lines to + and - 2-digit sub multi-arrays